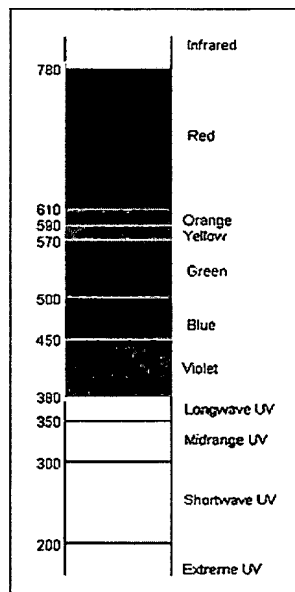


## **REMARKS**

### **Claim Amendments**

By this Amendment, Applicant has canceled claim 9 and has amended claims 1-4 of this application. It is believed that the amended claims specifically set forth each element of Applicant's invention in full compliance with 35 U.S.C. § 112, and define subject matter that is patentably distinguishable over the cited prior art, taken individually or in combination.

One page 2 of the outstanding Office Action, the Examiner states that, in Figs. 1-3, Meada et al. discloses a white light source including a near UV light-emitting diode (1), and submits that the near UV light in the art is a blue color. However, the applicant submits that the near UV light is not a blue color based on the light spectrum (shown below). Actually, the near UV in the art is a light in a range of 350nm to 380nm and is generally called a long wave UV or UVA. Furthermore, the blue color range is 450nm to 500nm. The near UV light-emitting diode of Meada et al. is distinguishable from the blue light-emitting diode of the present invention.



Meada et al. do not teach the blue light-emitting diode emitting a light having a wavelength from 400nm to 490nm; the red phosphor is SrS: Eu; the green

phosphor is  $\text{Ca}_8\text{EuMnMg}(\text{SiO}_4)_4\text{C}_{12}$ ; nor do Meada et al. teach the yellow phosphor is  $\text{TbAG:Ce}$ .

The secondary reference to Setlur et al. teaches phosphors containing oxides of alkaline-earth and is cited by the Examiner on page 2 of the outstanding Office Action for teaching, in Fig 4, "a light emitting diode having wavelength near UV- to-blue range for the purpose of providing a light-emitting diode having emission in the range of maximum sensitivity to the human eyes". However, the Applicant respectfully submits the near UV-to-blue range in Setlur et al. is 350nm to 450nm, which is distinguishable from the blue color range of 450nm to 500nm of the present invention.

Setlur et al. teaches a phosphor that is excitable by radiation having wavelengths in the near UV-to-blue range (from about 315nm to about 480nm) and emits a green-to-yellow visible light from about 480nm to about 600nm. Setlur et al. do not disclose the white light source uses a LED emitting in the visible light from 400nm to 490nm.

Setlur et al. teaches a yellow-orange light emitting phosphor being of  $\text{YAG:Ce}$ . However, there of no suggestion in Setlur et al. of a yellow phosphor being  $\text{TbAG:Ce}$ .

Setlur et al. do not teach the blue light-emitting diode emitting a light having a wavelength from 400nm to 490nm; the red phosphor is  $\text{SrS:Eu}$ ; the green phosphor is  $\text{Ca}_8\text{EuMnMg}(\text{SiO}_4)_4\text{C}_{12}$ ; nor do Setlur et al. teach the yellow phosphor is  $\text{TbAG:Ce}$ .

The secondary reference to Mueller-Mach et al. is cited for teaching a red phosphor being  $\text{Eu:SrS}$ .

Mueller-Mach et al. do not teach the blue light-emitting diode emitting a light having a wavelength from 400nm to 490nm; the red phosphor is  $\text{SrS:Eu}$ ; the green phosphor is  $\text{Ca}_8\text{EuMnMg}(\text{SiO}_4)_4\text{C}_{12}$ ; nor do Mueller-Mach et al. teach the yellow phosphor is  $\text{TbAG:Ce}$ .

The secondary reference to Tian et al. is cited for teaching a green phosphor being  $\text{SrGa}_2\text{S}_4\text{:Eu}$ .

Tian et al. do not teach the blue light-emitting diode emitting a light having a wavelength from 400nm to 490nm; the red phosphor is SrS: Eu; the green phosphor is  $\text{Ca}_8\text{EuMnMg}(\text{SiO}_4)_4\text{C}_{12}$ ; nor do Tian et al. teach the yellow phosphor is TbAG:Ce.

Even if the teachings of Meada et al., Setlur et al., Mueller-Mach et al., and Tian et al. were combined, as suggested by the Examiner, the resultant combination does not suggest: the blue light-emitting diode emitting a light having a wavelength from 400nm to 490nm; the red phosphor is SrS: Eu; the green phosphor is  $\text{Ca}_8\text{EuMnMg}(\text{SiO}_4)_4\text{C}_{12}$ ; nor does the combination suggest the yellow phosphor is TbAG:Ce.

It is a basic principle of U.S. patent law that it is improper to arbitrarily pick and choose prior art patents and combine selected portions of the selected patents on the basis of Applicant's disclosure to create a hypothetical combination which allegedly renders a claim obvious, unless there is some direction in the selected prior art patents to combine the selected teachings in a manner so as to negate the patentability of the claimed subject matter. This principle was enunciated over 40 years ago by the Court of Customs and Patent Appeals in In re Rothermel and Waddell, 125 USPQ 328 (CCPA 1960) wherein the court stated, at page 331:

The examiner and the board in rejecting the appealed claims did so by what appears to us to be a piecemeal reconstruction of the prior art patents in the light of appellants' disclosure. ... It is easy now to attribute to this prior art the knowledge which was first made available by appellants and then to assume that it would have been obvious to one having the ordinary skill in the art to make these suggested reconstructions. While such a reconstruction of the art may be an alluring way to rationalize a rejection of the claims, it is not the type of rejection which the statute authorizes.

The same conclusion was later reached by the Court of Appeals for the Federal Circuit in Orthopedic Equipment Company Inc. v. United States, 217 USPQ 193 (Fed.Cir. 1983). In that decision, the court stated, at page 199:

As has been previously explained, the available art shows each of the elements of the claims in suit. Armed with this information, would it then be

non-obvious to this person of ordinary skill in the art to coordinate these elements in the same manner as the claims in suit? The difficulty which attaches to all honest attempts to answer this question can be attributed to the strong temptation to rely on hindsight while undertaking this evaluation. It is wrong to use the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit. Monday morning quarterbacking is quite improper when resolving the question of non-obviousness in a court of law.

In In re Geiger, 2 USPQ2d, 1276 (Fed.Cir. 1987) the court stated, at page 1278:

We agree with appellant that the PTO has failed to establish a *prima facie* case of obviousness. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching suggestion or incentive supporting the combination.

Applicant submits that there is not the slightest suggestion in either Meada et al., Setlur et al., Mueller-Mach et al., or Tian et al. that their respective teachings may be combined as suggested by the Examiner. Case law is clear that, absent any such teaching or suggestion in the prior art, such a combination cannot be made under 35 U.S.C. § 103.

Neither Meada et al., Setlur et al., Mueller-Mach et al., nor Tian et al. disclose, or suggest a modification of their specifically disclosed structures that would lead one having ordinary skill in the art to arrive at Applicant's claimed structure. Applicant hereby respectfully submits that no combination of the cited prior art renders obvious Applicant's amended claims.

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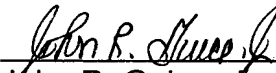
**Summary**

In view of the foregoing amendments and remarks, Applicant submits that this application is now in condition for allowance and such action is respectfully requested. Should any points remain in issue, which the Examiner feels could best be resolved by either a personal or a telephone interview, it is urged that Applicant's local attorney be contacted at the exchange listed below.

Respectfully submitted,

Date: August 28, 2006

By:

  
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